CLAIMS

1. A heat exchanger comprising a pair of header tanks arranged one above the other at a spacing, a plurality of heat exchange tubes arranged in parallel between the pair of header tanks and having opposite ends joined to the respective header tanks, and fins arranged between respective left-to-right adjacent pairs of heat exchange tubes, the lower header tank comprising a tank forming member and a tube connecting plate joined to an upper surface of the tank forming member, the tube connecting plate having a plurality of drain guides arranged at a spacing in a left-right direction.

2. A heat exchanger according to claim 1 wherein the tube connecting plate has an upper surface cover portion covering the upper surface of the tank forming member and a side cover portion covering at least an upper portion of each of front and rear opposite side faces of the tank forming member, and the drain guides are formed in the upper surface cover portion of the tube connecting plate to the side cover portion thereof.

3. A heat exchanger according to claim 1 wherein the tube connecting plate has an upper surface cover portion covering the upper surface of the tank forming member, and the drain guides are formed in the upper surface cover portion of the tube connecting plate.

4. A heat exchanger according to claim 1 wherein the tube connecting plate has an upper surface cover portion covering the upper surface of the tank forming member and a side cover portion covering at least an upper portion of each of front and rear opposite side faces of the tank forming member, and

the drain guides are formed in the side cover portion of the tube connecting plate.

5. A heat exchanger according to claim 1 wherein the drain guides each comprise a cutout portion formed in the tube connecting plate.

6. A heat exchanger according to claim 1 wherein the drain guides each comprise a recessed portion formed in the tube connecting plate.

7. A heart exchanger according to claim 1 wherein the drain guides each comprise an outwardly protruding rib formed on the tube connecting plate.

8. A heat exchanger according to claim 1 wherein the tank forming member of the lower header tank comprises a header forming plate having at least one outward bulging portion extending longitudinally of the lower header tank, and a closure plate interposed between and joined to the tube connecting plate and the header forming plate so as to close an opening of the outward bulging portion of the header forming plate, and the tube connecting plate has a plurality of tube insertion through holes positioned in corresponding relation with the outward bulging portion and arranged at a spacing longitudinally of the tube connecting plate, the closure plate of the tank forming member having communication through holes for causing the tube insertion holes of the tube connecting plate to communicate with inside of the outward bulging portion of the header forming plate therethrough, the heat exchange tubes having their opposite ends inserted through respective tube insertion holes of tube connecting plates of the two header

tanks and brazed to the tube connecting plates.

9. A supercritical refrigeration cycle wherein a supercritical refrigerant is used and which comprises a compressor, a gas cooler, an evaporator, a pressure reducer and an intermediate heat exchanger for subjecting to heat exchange a refrigerant flowing out of the gas cooler and a refrigerant flowing out of the evaporator, the evaporator comprising a heat exchanger according to any one of claims 1 to 8.

10. A supercritical refrigeration cycle according to claim 9 wherein the supercritical refrigerant is carbon dioxide.

11. A vehicle having installed therein a supercritical refrigeration cycle according to claim 9 as a motor vehicle air conditioner.